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ABSTRACT

THE EFFECTS OF GROUP COUNSELING UPON THE READING IMPROVEMENT OF STUDENTS ATTENDING A COLLEGE READING-IMPROVEMENT CLASS WERE INVESTIGATED. ALL STUDENTS ENROLLED IN THE CLASS (56) WERE RANDOMLY ASSIGNED TO A CONTROL OR EXPERIMENTAL GROUP. PRETEST AND POST-TEST MEASURES WERE TAKEN USING THE FOLLOWING INSTRUMENTS: THE DIAGNOSTIC READING TESTS, SURVEY SECTION; THE TENNESSEE SELF CONCEPT SCALE; THE SURVEY OF STUDY HABITS AND ATTITUDES; AND THE INSTITUTE FOR PERSONALITY AND ABILITY TESTING 8 - PARALLEL - FORM ANXIETY BATTERY. FALL, WINTER, AND SPRING TERM GRADE POINT AVERAGES WERE USED. CONTROL SUBJECTS ATTENDED FOUR 50-MINUTE READING CLASSES PER WEEK, WHILE THE EXPERIMENTAL SUBJECTS ATTENDED TWO OF THE SAME CLASSES PER WEEK AND PARTICIPATED IN GROUP COUNSELING DURING THE REMAINING PERIODS. DATA WERE TREATED BY ANALYSIS OF COVARIANCE. COUNSELING GROUPS' INTERACTIONS WERE COMPARED FOR THE FIRST AND TENTH COUNSELING SESSIONS THROUGH USE OF THE HILL INTERACTION MATRIX UTILIZING ANALYSIS OF VARIANCE. THE FINDINGS INDICATED NO SIGNIFICANT DIFFERENCES BETWEEN THE TOTAL EXPERIMENTAL AND CONTROL GROUPS ON READING IMPROVEMENT, SELF-CONCEPT, ANXIETY, STUDY HABITS AND ATTITUDES, AND GRADE POINT AVERAGE AS A RESULT OF GROUP COUNSELING. BIBLIOGRAPHY AND TABLES ARE INCLUDED. (WB)

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SUMMARY

The inability of large numbers of college students to read with sufficient proficiency to achieve adequately in their college courses has long been recognized and has been an area for considerable conjecture. Wide variations in the teaching of reading to college students are apparent and seem to represent attacks upon the improvement of specific reading skills, knowledges, and techniques. These approaches reflect the reading philosophies of the departments within which the programs are offered, such as psychology, English, education and personnel services. Some of these reading programs have dealt primarily with man as a rational learning-thinking machine while other programs have indicated an awareness of the non-cognitive nature of man, such as his emotionality and his attitudes. This study was an attempt to consider the whole individual in association with his development in reading and his gains in reading improvement.

Since it was not possible to evaluate all the aspects of the mental, emotional, physical and social life of each individual student, only certain factors were selected for study in a combined group counseling and reading improvement learning environment. These factors were reading skills, ie. vocabulary, rate, and comprehension; self concept; anxiety; study habits and study attitudes; college achievement; and the quality and kind of group interactions.

To study these factors experimentally, all of the students who registered for the three credit reading classes at Columbia Basin Community College during the winter quarter of the 1968-69 school year were utilized as the sample. This total sample of 71 students was randomly divided into experimental and control groups. Drop-outs during the research reduced the final number of students to 56. The independent variable applied to the experimental group was group counseling conducted by the community college counselors. A pre-test and post-test pattern measured reading skills, self concepts, study attitudes and habits and anxiety levels. Grade point average data was gathered for fall, winter and spring quarters. Analysis of covariance was applied to the measured changes to determine whether there were significant differences between the groups. The data was punched into cards and analyzed on an IBM 1620 computer.

To study the group interactions, the Hill Interaction Matrix, Form G was applied to the audio tapes of the first and tenth sessions of each of the counseling groups. This evaluation of the group interactions was accomplished by two consultants in group counseling working independently.

The findings of the study indicated that there were no significant differences between the total experimental and control groups on the measured variables; ie, reading improvement, self concept, anxiety, study habits and attitudes and GPA, as the result of the independent variable, group counseling. However, when comparisons were made of identifiable segments of the experimental and control groups, some significant differences did appear.

Apparently the relatively unstructured, group centered counseling approach utilized for this one quarter study was not adequate to result in measurable and significant modifications of most of the variables in this study. It may be that such changes would result from strong leadership by group counselors over a time period of one quarter. An alternative would be to attempt an investigation utilizing the relatively unstructured, group-centered counseling approach over an elongated time period such as one year. Numerous other factors, besides the ones studied here, could be investigated.

INTRODUCTION

Numerous researchers and writers have expressed concern over the inability of college students to read well enough to achieve gratifying successes in their college courses.[2, 3, 5] As a result, many colleges and universities now offer some type of reading improvement classes.[4] Most of these reading programs appear to have been frontal attacks committed to the upgrading of speed, comprehension, and vocabulary. However, some researchers have studied the effects of affective and non-cognitive factors upon reading characteristics and reading improvement and have found reading related to adjustment,[10] anxiety,[13] and self concept.[11] On the other hand, relatively little research seems to have been engendered concerning attitudinal changes in relation to differing reading approaches.[7]

College reading programs are directed by and operate within widely divergent departments with philosophies which differ considerably. Regardless of the philosophies involved, most programs seem to have the intent of improving the abilities of the reader in comprehending and thinking about the written word and in increasing recall. However, the outcomes of these widely differing kinds of programs seem to have insufficient impact upon the total spectrum of functional and practical reading requirements in the daily lives of people. These results may be due to the inability of reading programs to encompass the multifaceted nature of human behavior. It is a matter of general awareness that humans are physical organisms functioning psychologically in social settings.[1] Therefore, it seems evident that new approaches to teaching reading in college must be developed which include these human characteristics more completely.

PROBLEMS UNDER CONSIDERATION

This research was an attempt to move in the direction described above through testing the outcome of a combined reading improvement and group counseling program on community college students. Since it was not possible to account for and measure all of the factors present in this learning environment, a few were selected as indicated by the following questions the research attempted to answer. 1. Would students show greater gains in reading in a combined group counseling and reading improvement learning environment than they would in a usual reading program? 2. Would attitudes and habits toward school and study change in positive directions? 3. Would concepts of self change to more positive expressions? 4. What would occur in relation to anxiety levels?

5. Would college grade point averages increase significantly? 6. Would the counseling groups attain work levels in their interactions? These questions were stated as null hypotheses for their experimental investigation.

GENERAL METHODOLOGY

The research sample was composed of all students who registered in three credit reading improvement classes at Columbia Basin Community College during the winter quarter of the 1968-69 school year. These seventy one students were divided into experimental and control groups utilizing the method of alphabetical assignment advocated by Rothney.[12] The total group of students was listed alphabetically by last name and then divided by placing the first one into the control group, the second into the experimental group and the third into the control group. This continued until each student was assigned to a group which resulted in 36 control and 35 experimental students. The decision as to whether the first student should be placed in the control or experiment group was made by a coin toss. Dropouts during the study reduced the numbers to 31 in the control group and 25 in the experimental group.

A pre-test and post-test pattern was followed with the following measuring instruments: The Diagnostic Reading Tests, Survey Section; The Tennessee Self Concept Seale; The Survey of Study Habits and Attitudes; and the Institute for Personality and Ability Testing (IPAT) 8 - Parallel - Form Anxiety Battery. Fall, winter, and spring GPA'a were gathered from the college registrar's files. The collected data was punched into cards and analyzed through use of an IBM 1620 computer. The statistical analysis utilized was analysis of covariance.[6]

The independent variable applied to the experimental groups was group counseling as conducted by community college counselors with the assistance, during five meetings with the counselors, of a consultant in group processes. The sessions with the consultant served to partially standardize counselors behaviors in relation to common group problems, allowed the counselors to express and deal with their own feelings toward the groups and seemed to improve counselor functioning.

Control students attended the regular college reading classes four 50 minute periods a week and practiced their reading skills and increased their reading knowledges. The experimental students shared reading class experiences with control students two days a week and attended group counseling sessions the two remaining

periods. During the reading classes experienced by both groups, there were 20 rainute discussions and lectures once or twice a week centered around such topics as eye behavior while reading, reading and study improvement techniques, improving comprehension, reading rate, word recognition skills, word attack skills, note taking while reading and listening and listening skills. The remaining class time was expended in practicing reading with a wide variety of materials including Science Research Associates, Inc. Reading Laboratories and Reading for Understanding, reading pacers, workbook type texts, and programmed vocabulary tests. To a considerable extent, the practice time was based on individual assignments by the reading instructors to material which was challenging and would allow feelings of success.

READING IMPROVEMENT AND GROUP COUNSELING

The first research question, as previously stated, concerned itself with the effects of group counseling upon reading improvement. Reading was measured by the Diagnostic Reading Tests, Survey Section with resulting scores for vocabulary, comprehension, rate, and reading total. Form A was administered during the second class of the quarter and Form B during the last class of the quarter to all the students in the study.

Statistical comparisons of the scores of the total experimental and control groups are contained in Table 1, Appendix B. None of the F values is significant at either the .05 or .01 levels, so it appears that group counseling had no significantly different effect upon reading scores than did reading instruction by itself. The same findings and conclusions were evident when experimental and control students were compared by age and year in college. A significant difference at the .05 level was found between the female experimental and female control students on vocabulary with the experimental students showing measured improvement while the control students mean scores decreased on the post-test. This is shown in Table 1a, Appendix B.

SELF CONCEPT AND AND ANXIETY MODIFICATION

The self concept hypothesis was formulated to investigate whether the independent variable, group counseling, would modify to a significant degree the self perceptions held by group members when their perceptions were compared with those of control group members. The Tennessee Self Concept Scale was administered in the pre-test and post-test pattern and scores for self criticism, self esteem, consistency and certainty were obtained.

According to Table 2 in Appendix B, there were no significant differences in self concept between the total experimental and control groups comparisons. The F value of 3.70 does approach the 4.02 needed for a significant difference at the .05 level of confidence. It is interesting to note that on the main score of positive feelings about self, the self esteem score, the experimental group post-test mean did show a ten point increase over the pre-test mean while the control group means were nearly exactly the same.

It was anticipated that anxiety amongst experimental group members would decrease as a result of their group counseling experiences. Two equivalent forms of the IPAT 8 - Parallel Form Anxiety Battery, were administered to the total sample, Form D at the beginning and Form F near the end of the study. The seven relatively short subtests of each form were combined into total scores, and the results are reported in the lower segment of Table 2 in Appendix B. Score A was computed for each student by dividing the raw score of each subtest by the number of items answered and summing the averages. Score B was the result of dividing the total raw score for each student by the number of items answered. The F values are not even approaching the 4.02 required for them to be significant at the .05 level of confidence. Therefore, the anticipated decrease in anxiety among students experiencing group counseling was not greater than for control students.

STUDY HABIT AND ATTITUDE MODIFICATION

The fourth research question was formulated to inquire whether the study habits and study attitudes of students experiencing group counseling would be significantly modified in positive directions. The Brown-Holtzman Survey of Study Habits and Attitudes (SSHA) was administered near the beginning of the research period and readministered at the end. The F values obtained for each of the variables measured by this instrument are displayed in Table 3 in Appendix B. When the total experimental and control groups were compared, there were no significant differences. This leads to the conclusion that the one quarter group counseling experience was not effective in altering measured students study habits and attitudes to a greater extent than was accomplished by control students experiences. Table 3a indicates that comparisons of second year experimental and control students resulted in differences beyond the .05 level of confidence on the delay avoidance and study habits variables. However, the experimental group scores decreased while the control group scores improved. If this finding is valid, and the small total N of 11 in this sub-group comparison makes it questionable, then it might be stated that group counseling is effective in changing some study

habits of second year college students but in an undesirable direction. On the other hand, it might be that the experimental group students were in the process of modifying their study approaches and responded to the measuring instrument with confusion.

GRADE POINT AVERAGE MODIFICATION

It was anticipated that successful and productive group counseling experiences might be reflected in improved grade point averages during and subsequent to the counseling. Grade point averages for each of the fall, winter, and spring quarters were gathered from the individual student transcript files located in the college registrar's office. A few of the students attended only the winter quarter during which the research was conducted, some attended only one additional quarter preceding or following the data gathering quarter, and still others received incomplete grades, so no GPA's were available for them. This explains the variability of the N in Table 4 which reports the findings for this segment of the study.

Comparisons were made between earned GPA's in three ways, fall and winter, fall and spring, and winter and spring. The F values resulting from all three comparisons were not significant. It is obvious however, that there were rather large increases in grade point averages between fall and winter and between fall and spring in both the experimental and control groups. It appears that one quarter of college experience, and possibly two quarters in the cases of some students, resulted in a considerably improved capability for dealing with the complexities of the college learning environment. The relatively constant GPA means for winter and spring might indicate that after one or at the most two quarters of college experience the GPA's reach a plateau of at least a temporary nature. Group counseling had no apparent effect upon this finding.

ATTAINMENT OF GROUP COUNSELING WORK LEVELS

This segment of the research dealt with an evaluation of the interactions of the experimental group members as the group counseling process evolved. It was reasoned that if the counseling groups were found to be interacting at group work levels this would have significance in relation to the other findings of this study.

There were three counseling groups with an original assignment of eleven or twelve students each. The groups met in a small classroom and in a room prepared for small group testing. The arrangement

was basically a circle around tables with the tape recorder on the fringe of the group. Group counseling sessions were conducted for fifty minutes, twice a week and were of a group centered relatively unstructured nature. Their underlying philosophy of operation was much like that described by Lifton[9] and by Rogers.[8]

Audio tapes were made of each of the group counseling sessions and the interactions analysis during the first and tenth group sessions was conducted independently by two consultants utilizing the Hill Interaction Matrix - Form G. (HIM-G)*

Table 5 in Appendix B summarizes the results of an analysis of variance[6] which compared the speculative and confrontive scores resulting from the two judges evaluations of the three audio tapes for the first and for the tenth group sessions. The F value of 13.29 is significant at well beyond the .05 level of confidence and indicates that the two judges believed the tenth group sessions were more productive of work than the first group sessions.

According to Table 6 the two judges evaluated the risk ratio** as rising in every comparison of the first and tenth audio tapes. The two judges appeared to feel that the tenth audio tapes definitely indicated more group interactions characterized by considerable real involvement, emotional tension and mental impact than was evident on the first tapes. The intra-group ratio*** did not show such a decisive rise however, it was described as remaining the same or advancing in all but two of the six comparisons. In group three evaluator number one judged the intra-group ratio to have changed from high average to low average and in group one from low average to low. It should be noted that all but one of the twelve descriptions of intra-group ratio were average or above. This appears to indicate a general willingness to discuss group matters and relationships among group members was present from the beginning.

*HIM was developed by Wm. Fawcett Hill at the Youth Studies Center at the University of Southern California. It's purpose is to study interaction in psychotherapy groups. A copy of the matrix is in Appendix A.

**Risk ratio is a HIM term which consists of the volume of member verbal participation in assertive and confrontive areas compared with volume of conventional and speculative verbalizations.

***Intra-group ratio is the volume of group and relationship compared with topic and personal verbalizations by group members.

There seems to be a reasonable amount of evidence that the counseling groups were functioning at work levels at least by the tenth sessions. How fully the work levels of functioning were maintained during the intervening sessions between the first and the tenth is not known with precision. The quality of the work level experiences in the groups is open to question, also. An additional unanswered question concerns the amount of group work level functioning required to bring about changes in anxiety, self concept, reading skills, study habits and attitudes, and GPA's. This assumes such changes would occur with quality group work levels of functioning.

CONCLUSIONS AND IMPLICATIONS

This study was conducted primarily to investigate the effects of group counseling upon the several measureable human variables discussed earlier in the report. Thus, the major conclusion must be that group counseling as herein described did not significantly modify the reading skills, self concepts, anxiety levels, study habits and attitudes, and grade point averages of the students involved. However, some segments of the total groups, for example female experimental compared with female control students on vocabulary, did show significant differences. Also, the students who experienced group counseling did show more improvement on each of the reading variables than did the control students. This occurred despite the experimental group students devoting only one half as much class time to practicing reading.

Another finding was that the community college counselors were apparently successful with the assistance of a consultant in establishing a group counseling atmosphere which resulted in group functioning at the work level. It must then be concluded that the relatively unstructured, group centered counseling approach utilized for only a one quarter time period may not have been adequate to bring about the outcomes anticipated. This does not necessarily imply that other group counseling approaches or the same approach over a more extended time period might not result in significant modification of the variables employed in this study or other measurable variables.

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APPENDIX A

Hill Interaction Matrix (HIM)

HILL INTERACTION MATRIX

CONTENT/STYLE

		TOPIC CENTERED		MEMBER CENTERED		
		TOPICS	GROUP	PERSONAL	RELATIONSHIP	
		I	II	III	IV	
Pre-Work	A	I A	II A	III A	IV A	RESPONSIVE
	B	I B	II B	III B	IV B	CONVENTIONA
	C	I C (3)	II C (6)	III C (11)	IV C (12)	ASSERTIVE
	D	I D (5)	II D (6)	III D (13)	IV D (14)	SPECULATIV
Work	E	I E (7)	II E (8)	III E (15)	IV E (16)	CONFRONTIV

APPENDIX B

Tables of Findings

TABLE 1

Comparisons of Reading Test Scores for Experimental and Control Groups Utilizing Analysis of Covariance.

Variable	Group	N	Pre-test Mean	Post-test Mean	*F Value
Vocabulary	Exper.	25	35.84	36.84	1.78
	Control	31	36.87	35.71	
Comprehension	Exper.	25	26.76	27.36	.20
	Control	31	24.71	25.84.	
Rate	Exper.	25	240.28	328.08	.40
	Control	31	248.74	349.19	
Reading Total	Exper.	25	62.60	64.16	.94
	Control	31	61.58	61.55	

*4.02 is the .05 level of confidence for 1.54 d.f.

TABLE 1a

Comparisons of the Reading Test Scores for Female Experimental and Female Control Groups Utilizing Analysis of Covariance

Variable	Group	N.	Pre-Test Mean	Post-Test Mean	*F Value
Vocabulary	Exper.	9	36.33	39.78	7.38
	Control	10	35.40	31.70	
Comprehension	Exper.	9	27.11	26.78	1.67
	Control	10	23.60	28.40	
Rate	Exper.	9	253.67	324.11	.11
	Control	10	240.50	309.70	
Reading Total	Exper.	9	63.44	66.56	.70
	Control	10	59.00	60.10	

*4.45 is the .05 level of confidence for 1,17 d.f.
8.40 is the .05 level of confidence for 1,17 d.f.

TABLE 2

COMPARISONS OF SELF CONCEPT SCALE AND ANXIETY SCORES OF EXPERIMENTAL AND CONTROL GROUPS UTILIZING ANALYSIS OF COVARIANCE

Variable	group	N	Pre-Test Mean	Post-Test Mean	*F Value
Self Criticism	Exper.	25	34.64	32.88	3.70
	Control	31	36.61	36.35	
Self Esteem	Exper.	25	333.96	344.52	1.82
	Control	31	334.26	334.61	
Consistency	Exper.	25	50.60	45.28	.44
	Control	31	49.03	42.74	
Certainty	Exper.	25	107.36	113.40	.15
	Control	31	108.87	112.35	
Anxiety-Score-A	Exper.	25	5.97	5.57	.10
	Control	31	6.28	5.77	
Score B	Exper.	25	.91	.78	1.15
	Control	31	.88	.83	

*4.02 is the .05 level of confidence for 1, 54 d. f.

TABLE 3

COMPARISONS OF SURVEY OF STUDY HABITS AND ATTITUDES SCORES FOR EXPERIMENTAL AND CONTROL GROUPS UTILIZING ANALYSIS OF COVARIANCE

Variables	Group	N	Pre-Test Mean	Post-Test Mean	*F Value
Delay Avoidance (DA)	Exper.	25	23.32	25.12	.46
	Control	31	21.55	22.26	
Work Methods (WM)	Exper.	25	21.76	25.28	.36
	Control	31	18.81	23.58	
Study Habits-SH (DA + WM)	Exper.	25	45.24	50.40	.00
	Control	31	40.35	45.90	
Teacher Approval (TA)	Exper.	25	34.76	34.40	.14
	Control	31	32.55	32.77	
Education Acceptance (EA)	Exper.	25	31.40	30.12	.18
	Control	31	29.40	28.13	
Study Attitudes SA (TA + EA)	Exper.	25	66.16	64.12	.52
	Control	31	61.65	60.90	
Study Orientation (SH + SA)	Exper.	25	108.92	114.48	.00
	Control	31	102.06	106.81	

*4.02 is the .05 level of confidence for 1, 54 d.f.

TABLE 3a

COMPARISONS OF SURVEY OF STUDY HABITS AND ATTITUDES SCORES OF SECOND YEAR EXPERIMENTAL AND CONTROL GROUPS UTILIZING ANALYSIS OF COVARIANCE

Variables	Group	N	Pre-Test Means	Post-Test Means	✓F Values
Delay Avoidance (DA)	Exper.	7	29.33	26.00	8.04*
	Control	4	20.25	28.00	
Work Methods (WM)	Exper.	7	32.33	31.50	3.99
	Control	4	24.50	32.00	
Study Habits - SH (DA + WM)	Exper.	7	61.67	57.50	6.76*
	Control	4	44.75	60.00	
Teacher Approval (TA)	Exper.	7	38.17	40.00	.29
	Control	4	36.75	40.75	
Education Acceptance (EA)	Exper.	7	34.83	35.50	.02
	Control	4	33.50	34.75	
Study Attitudes SA (TA + EA)	Exper.	7	73.00	75.50	.25
	Control	4	70.35	75.50	
Study Orientation (SH + SA)	Exper.	7	124.67	133.00	.77
	Control	4	115.00	13 . 0	

✓5.32 is the .05 level of confidence for 1, 8 d. f.
*Significant at .05 level for 1, 8 d. f.

TABLE 4

COMPARISONS OF THE FALL & WINTER, FALL & SPRING AND WINTER & SPRING GRADE POINT AVERAGES FOR EXPERIMENTAL AND CONTROL GROUPS UTILIZING THE ANALYSIS OF COVARIANCE

Group	N	Fall Qtr. Means	Winter Qtr. Means	F Values
Exper.	18	2.13	2.48	.25*
Control	18	2.42	2.51	

Group	N	Fall Qtr. Means	Spring Qtr. Means	F Values
Exper.	18	2.13	2.52	.00 ✓
Control	16	2.16	2.54	

		Winter Qtr. Means	Spring Qtr. Means	F Values
Exper.	21	2.57	2.57	.15 x
Control	23	2.52	2.46	

*4.13 is the .05 level of confidence for 1, 34 d. f.
✓4.15 is the .05 level of confidence for 1, 32 d. f.
x4.07 is the .05 level of confidence for 1, 42 d. f.

TABLE 5

COMPARISONS OF COUNSELING GROUP INTERACTIONS ON THE FIRST AND TENTH AUDIO TAPES AS EVALUATED THROUGH USE OF THE HIM-G AND UTILIZING ANALYSIS OF VARIANCE

Sources of Variation	df	Sources of Squares	Mean Square (Variance)	F Values
Between trials	1	1235.67	1235.67	13.29*
Among subjects	5	716.17	143.23	1.54
Interaction	5	464.83	92.97	
Totals	11	2416.67		

*6.61 is the .05 level of confidence for 1, 5 df.

TABLE 6

DESCRIPTIVE EVALUATIONS OF RISK RATIO AND INTRA-GROUP RATIO FOR EACH COUNSELING GROUP AS DETERMINED BY TWO EVALUATORS UTILIZING THE HILL INTERACTION MATRIX, FORM G

Counseling Groups	Risk Ratio Description *	
	First Tape	Tenth Tape
1	low, average	high, high average
2	low average, relatively high	extremely high, extremely high
3	low, low average	low average, high
	Intra-Group Ratio Description	
1	low average, high average	low,high average
2	average, above average	high average, above average
3	high average, high average	low average, high

*Evaluator number one's description is listed first for each tape.